

Title (en)  
SCREW FLUID MACHINE

Title (de)  
SCHRAUBENSTRÖMUNGSMASCHINE

Title (fr)  
MACHINE À FLUIDE À VIS

Publication  
**EP 2204584 A4 20141231 (EN)**

Application  
**EP 08842740 A 20081014**

Priority  
• JP 2008068563 W 20081014  
• JP 2007273958 A 20071022

Abstract (en)  
[origin: EP2204584A1] A screw compressor of the present invention includes a pair of male and female screw rotor meshed with each other and rotatably accommodated in a casing, the screw rotors being adapted to suction, compress and discharge a fluid, a main thrust bearing having an inner ring fixed to a rotor shaft serving as a rotation shaft of at least one of the screw rotors and an outer ring fixed to the casing, the main thrust bearing being adapted to receive thrust force of the rotor shaft, a balance bearing having an inner ring fixed to the rotor shaft and an outer ring movable relative to the casing, a bearing holding member for holding the outer ring of the balance bearing, and fluid pressure application means for pressing the bearing holding member toward the discharge side by fluid pressure. With such arrangement, it is possible to reduce a thrust load of the rotor shaft, and eliminate risks of an increase in a rotational load by a balance piston and seal leakage of the balance piston.

IPC 8 full level  
**F04C 18/16** (2006.01); **F01C 1/16** (2006.01); **F04C 29/00** (2006.01)

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**F04C 18/16** (2013.01 - EP KR US); **F04C 29/0021** (2013.01 - EP US); **F04C 29/02** (2013.01 - KR); **F04C 2240/50** (2013.01 - EP US)

Citation (search report)  
• [X1] WO 9112432 A1 19910822 - SVENSKA ROTOR MASKINER AB [SE]  
• [A] EP 0959250 A2 19991124 - CARRIER CORP [US]  
• See references of WO 2009054285A1

Cited by  
CN102345602A; US10415706B2; WO2014183204A1; WO2022268356A1

Designated contracting state (EPC)  
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MT NL NO PL PT RO SE SI SK TR

DOCDB simple family (publication)  
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**EP 08842740 A 20081014**; CN 200810170086 A 20081022; JP 2007273958 A 20071022; JP 2008068563 W 20081014; KR 20080092978 A 20080923; US 68229908 A 20081014